B. In the Claims

Please cancel claims 1 to 9, 11 to 13, and 24 to 43 without prejudice; amend claims 10, 14, and 17 to 23 as indicated; and add new claims 44 and 45. Upon entry of the present amendment, the status of the claims will be as follows:

1-9. (canceled)

10. (currently amended) A ~~method of selecting~~ screening assay for identifying a compound that interferes with binding of a synaptic activation protein to a ~~cellular binding protein~~ metabotropic glutamate receptor (mGluR), comprising:

a) adding a test compound to a reaction mixture ~~containing~~ comprising

(i) an isolated synaptic activation protein having at least 70% sequence identity to a polypeptide ~~having the sequence~~ comprising SEQ ID NO: 2, and

(ii) an isolated ~~binding protein to which~~ mGluR comprising SSSL (SEQ ID NO: 10) or SSTL (SEQ ID NO: 11), wherein the synaptic activation protein binds to the mGluR in the absence of the test compound, and

b) ~~(iii) means for~~ detecting a change in binding between the synaptic activation protein and the ~~binding protein; measuring binding between the synaptic activation protein and the binding protein; and selecting the compound if the measured binding is greater than or less than binding measured in the absence of the test compound~~ mGluR in the presence of the test compound as compared to the absence of the test compound, thereby identifying a compound that interferes with binding the synaptic activation protein and the mGluR.

11 to 13. (canceled)

14. (currently amended) The method of claim [[13]] 10, wherein the mGluR is ~~selected from~~ mGluR5 ~~and~~ or mGluR1α.

15. (currently amended) The method of claim 10, wherein the synaptic activation protein is a Homer protein ~~having the sequence~~ comprising SEQ ID NO: 2.

16. (previously presented) The method of claim 10, wherein the synaptic activation protein is coated onto a solid phase.

17. (previously presented) The method of claim 16, wherein the solid phase is a microtiter plate.

18. (currently amended) The method of claim 10, wherein the ~~means for detecting binding is~~ synaptic activation protein comprises a fusion protein comprising glutathione-S-transferase (GST) ~~pulldown~~.

19. (currently amended) The method of claim 10, wherein ~~the means for~~ detecting a change in binding is performed using a co-immunoprecipitation assay.

20. (currently amended) The method of claim 10, wherein the mGluR ~~measuring binding~~ comprises a detectable label ~~labeling the binding protein, wherein the labeling is direct labeling or is subsequent addition of a labeled, binding protein-specific reagent~~.

21. (currently amended) The method of claim 10 [[20]], wherein ~~the binding protein-specific reagent is~~ detecting a change in binding comprises contacting the reaction mixture with an antibody specific for the mGluR, wherein the antibody is detectably labeled, and measuring

antibody bound to mGluR in the presence of the test compound as compared to the absence of the test compound.

22. (currently amended) The method of claim 20, wherein the ~~labeling~~ detectable label comprises ~~use of~~ an enzyme ~~capable of generating a signal~~, ~~use of~~ a radiolabeled reagent, ~~use of~~ a fluorescent dye, ~~or use of~~ gold, or biotin.

23. (previously presented) The method of claim 22, wherein the radiolabeled reagent is labeled with ^{125}I.

24 to 43. (canceled)

44. (new) The method of claim 10, wherein detecting a change in binding is performed using a two hybrid assay.

45. (new) The method of claim 18, wherein the fusion protein, which comprises the synaptic activation protein and GST, is linked to a solid support.